

Appendix A

Sample Battalion (Unit-Level Maintenance) SOP

STANDING OPERATING PROCEDURES

[NAME] BATTALION

1. PURPOSE: To prescribe maintenance policies, procedures, responsibilities, and guidance for all units assigned to the [Name] Battalion.

2. MISSION: The mission of the [Name] Battalion requires that all equipment be combat-ready at all times.

3. APPLICABILITY: This SOP applies to all units and personnel assigned to the [Name] Battalion. This SOP is effective upon receipt and will remain in effect until superseded or rescinded. Any previous editions of [Name] Battalion Maintenance SOP or maintenance policy letters are hereby rescinded.

4. OBJECTIVES:

a. Maintain one hundred percent equipment serviceability with a minimum expenditure of time and repair parts.

b. Ensure maximum service life of all materiel and equipment.

c. Attain a state of training and discipline where each soldier becomes completely knowledgeable of his maintenance responsibilities.

d. Provide procedures for early detection and correction of actual or potential equipment faults at the lowest practical level of maintenance.

e. Achieve and maintain the highest materiel readiness posture necessary to accomplish assigned missions.

f. Standardize maintenance activities throughout the battalion.

g. Make maintenance training (training to prepare to go to war) a top priority.

5. DEFINITIONS:

a. Maintenance: All actions taken to retain materiel in a serviceable condition or to restore it to serviceability when it is unserviceable.

b. Command Maintenance: A period of preventive maintenance checks and services (PMCS) scheduled weekly and devoted to ensuring that all equipment functions and is operationally ready to perform its intended purpose (mission) without notice. Scheduled maintenance services and other equipment training should not be performed during command maintenance periods.

c. Operator Maintenance: The performance of before-, during-, and after-operation maintenance as prescribed in the appropriate technical manual.

d. Organizational Maintenance: The performance of preventive maintenance services, inspections, minor adjustments, replacement of designated components and assemblies, and

evacuation of unserviceable equipment beyond the unit's authorized level to repair as prescribed in the appropriate maintenance allocation chart (MAC).

e. Direct-Support-Level Maintenance: The performance of mobile, responsive, and one-stop maintenance support. Performance of all authorized maintenance that exceeds a unit's maintenance capability and enhances the quick-repair and return-to-user concept. Includes inspection; troubleshooting; testing; diagnosis; repair; adjustment; calibration; alignment of components, equipment, and systems; replacement and repair of end items; light body repairs; technical assistance; establishment of an authorized stockage list (ASL), a reparable exchange (RX) operation, and a limited operational readiness float (ORF); collection, classification, and recovery services for serviceable and unserviceable materiel; and establishment and operation of battle damage assessment (BDA) teams.

6. COMMAND AND STAFF RESPONSIBILITIES:

a. Command Responsibilities: Company commanders are directly responsible for the overall maintenance condition of all materiel assigned or attached; the supervision of maintenance operation and training; and *knowing the current maintenance status of all equipment and actions being taken to repair it when it is not mission-capable*. Platoon and section leaders and supervisors are directly responsible for performance of proper operator maintenance on all items of equipment, including records, within their platoon or section.

b. Battalion Commander: *The battalion's maintenance program will be a direct reflection of how much emphasis the commander places on maintenance.* Battalion commanders are responsible for:

- (1) Ensuring the battalion's overall materiel readiness.
- (2) Developing and implementing instructions and procedure guidelines for company commanders' compliance with regulations governing maintenance activities.
- (3) Providing for the maintenance of materiel and for supporting the efficiency of programs established for this purpose.
- (4) Rendering advice and assistance in planning the battalion/company maintenance program.
- (5) Exercising command supervision (inspections—formal/informal) over maintenance activities throughout the battalion.
- (6) Advising higher headquarters of all aspects of maintenance in the battalion.
- (7) Establishing their units' maintenance priorities.
- (8) Establishing battalion maintenance goals and objectives to ensure optimal use of funds and resources for personnel, tools, facilities, repair parts, publications, time, training, and records.
- (9) Conducting maintenance meetings with commanders and maintenance staff at a prescribed interval.

c. Battalion Executive Officer:

- (1) Serves as battalion materiel readiness officer.
- (2) Supervises preparation of the battalion and unit maintenance programs.
- (3) Serves as the principal assistant and advisor to the battalion commander in maintenance matters.

(4) Reviews instructions issued by the staff to ensure conformity with established standards and policy.

(5) Supervises and reviews periodic and special maintenance reports submitted to higher headquarters.

(6) Directs staff analysis of maintenance-related issues.

(7) Evaluates the maintenance program through frequent on-the-spot inspections and evaluations of reports.

(8) Inspects all maintenance operations, including maintenance management, repair parts systems, and scheduled periodic services.

(9) Recommends changes to the maintenance program as required.

(10) Conducts weekly maintenance meetings with company commanders.

d. Battalion Maintenance Officer (BMO):

(1) Has responsibility for the overall staff supervision of all maintenance operations and programs in the battalion.

(2) Assists subordinate units solving technical problems in maintenance and supply (repair parts) and monitors unit-level maintenance operations.

(3) Assists battalion commander and executive officer in planning, organizing, and coordinating battalion maintenance activities.

(4) Advises the battalion commander and executive officer on maintenance matters and keeps them informed on the operational status of all battalion equipment.

(5) Ensures, through assistance visits and recommendations to company commanders, that unit-level maintenance procedures and programs conform with current regulations and directives.

(6) Reviews and consolidates all company maintenance reports.

(7) Briefs the Battalion Maintenance SOP to all newly assigned lieutenants and senior noncommissioned officers.

(8) Maintains the Battalion Maintenance SOP.

(9) Monitors the battalion's Army Oil Analysis Program (AOAP).

(10) Monitors the battalion's TMDE Calibration Program.

(11) Manages the Repair Parts Local Purchase Program.

(12) Coordinates maintenance matters with adjacent units.

(13) Controls and operates the Battalion Local Purchase Program for Class IX repair parts.

e. Battalion Command Sergeant Major:

(1) Attends scheduled maintenance periods.

(2) Ensures that unit first sergeants and first-line supervisors are present during scheduled maintenance periods.

(3) Advises the battalion commander on the units' maintenance personnel gains, losses, strengths, and weaknesses.

(4) Checks maintenance operations, particularly operator training, supervisor involvement, and maintenance and safety awards program.

(5) Checks motor park areas and motor pool facilities through frequent on-the-spot inspections.

(6) Identifies maintenance weaknesses, makes corrections through the NCO chain, and advises the battalion commander as needed.

(7) Ensures that preventive maintenance is performed on weapons and on NBC, communications, and dining facility equipment through frequent inspections and makes appropriate corrections through the NCO chain.

7. COMMAND MAINTENANCE PERIODS AND PMCS:

a. Every Monday (all day) is Battalion Command Maintenance Day. When Monday is a holiday, the next day will be Command Maintenance Day. Command Maintenance Days will be included in units' weekly training schedules.

b. Commanders will ensure that *specific maintenance objectives* are planned and assigned for each scheduled period of preventive maintenance. "Doing the weeklies" is not an acceptable answer or plan. Maintenance objectives should be rotated to include specific items of special interest (maintenance indicators) on the equipment and maintenance of low-density equipment, e.g., generators, communications, NBC, weapons, tentage, tools, and dining facility equipment. Leaders and supervisors must be aware of the maintenance objectives for the period and take an active role in ensuring their accomplishment. At least two items (indicators) (e.g., batteries, canvas, parking brakes, jackshaft bolts, tires) will be checked by commanders, leaders, and supervisors on different items of equipment during the command maintenance day as part of the maintenance objectives or plan.

c. Results must be checked at the end of the maintenance period by the company commander and first sergeant, assisted by maintenance personnel; appropriate feedback is given to all concerned.

d. All equipment will be checked and exercised in accordance with appropriate operator's manual, including low-density equipment (generators, pumps, heaters).

e. During maintenance periods there will be a minimum of one operator present for each major item of equipment.

f. Organizational mechanics will be present to provide assistance to operators and supervisors as required.

g. Every leader/supervisor of the unit's maintenance chain must be present.

h. Platoon/section leaders and supervisors must also have a plan for each Monday. They will ensure that operator's manuals are available and used and that organic tools and materials are provided to assist operators in performing the preventive maintenance checks and services.

i. The motor sergeant or maintenance supervisor will ensure that POL products and other required materials are available.

j. Supervisors will ensure that operators are knowledgeable in the use of DA Form 5988-E, as provided by ULLS-G, and that they understand the flow of the form within the unit's maintenance program when discrepancies are noted during PMCS.

k. Operators will use the ULLS-G DA Form 5988-E to record equipment discrepancies that cannot be corrected on the spot or those that require repair parts. The DA Form 5988-E will be

turned in through the squad/section/platoon leader to the motor sergeant or maintenance supervisor for corrective action at the end of the maintenance period. The DA Form 5988-E must be checked by operators during PMCS. Supervisors must follow up by coordinating corrective actions with the motor sergeant. Staff members will supervise the maintenance of equipment assigned to their sections. Operators, first-line leaders, maintenance supervisors, and commanders are responsible for checking, following up, and keeping information current and correct on the DA Form 5988-E.

1. Operators will perform appropriate PMCS prior to dispatching the equipment. Platoons/sections will follow the same procedures outlined in command maintenance to ensure that faults are corrected and that necessary parts are ordered.

8. DISPATCHING PROCEDURE:

a. For control and planning purposes, dispatches will be requested using a locally made and reproduced form signed by the individual whose name will appear in the "Report to" block of the automated ULLS-G DA Form 5987-E.

b. Platoons/sections must submit requests for dispatch in ample time to allow operators to perform before-operation PMCS.

c. Prior to issuing the motor equipment utilization record, the dispatcher must verify that the intended operator has in his/her possession a *valid* operator's permit authorizing the individual to operate the item of equipment.

d. Dispatcher, operator, and first-line supervisors are responsible for checking the equipment identification card (in front of Equipment Record Folder—Logbook) for any service or AOAP sampling due.

e. Any discrepancies identified during PMCS that would render the equipment not mission-capable (NMC) must be corrected prior to dispatching it. Dispatch of vehicles/equipment on limited operation must be approved by the unit commander and done in accordance with DA Pam 738-750. Operators will use the DA Form 5988-E to list new faults they cannot fix and faults corrected by replacing parts. Faults previously recorded and action taken by maintenance personnel ordering parts must be reflected on the DA Form 5988-E.

f. Vehicle safety standards as outlined in AR 385-55 must be adhered to during the dispatch process. Vehicles with defective parking brakes, *any* gasoline leak, or Class III diesel, oil, or water leak will render the equipment NMC until repaired. Further, no vehicle will be operated with conditions (standards) outlined in AR 385-55 unless authorized by the unit commander (limited operation dispatch using DA Form 5988-E). Such conditions do not automatically "deadline" the equipment.

g. Supervisors/leaders will ensure that operators perform PMCS and verify the DA Form 5988-E, which is checked by the dispatcher before issuing the required motor equipment utilization record, DA Form 5987-E. Also, supervisors on dispatch ensure that a fire extinguisher and first aid kit are in serviceable condition and in the possession of the operator.

h. Off-post dispatches will be closely monitored by unit commanders. Operators will be given a safety briefing by their supervisor prior to leaving the motor pool. There must be two soldiers in each vehicle going off post, and the "shot gun rider" should be in grade E5 or above.

i. Except for training or emergency purposes, E7s and above are not authorized to operate military vehicles in the battalion.

9. LICENSING AND TRAINING OF OPERATORS:

a. Minimum standards for selecting, training, testing, and licensing drivers of wheeled vehicles are contained in AR 600-55, FM 55-30, FM 21-305, and AR 385-55. Criteria for selecting, training, testing, and licensing mechanical/ground support equipment operators are contained in AR 600-55, TB 600-1, and TB 600-2. These publications will be on hand in each unit and will be the subject of special interest during battalion inspections.

b. Each company commander will appoint in writing individuals to perform as *qualifying officials* (examiners) in the grade of SSG or above. Examiner(s) must be qualified on, and licensed to operate, *each type of equipment* they are authorized to verify or test.

c. Commanders must ensure that a *comprehensive training program* is implemented in the company (preferably included in the training schedule), which incorporates safe, legal operation of the equipment on and off post, familiarization with all equipment assemblies and components, how to perform PMCS using the appropriate manual, and how to properly fill out DA Form 5988-E. Examiners should be used as chief trainers of their respective items of equipment.

d. The battalion maintenance officer (BMO) is responsible for monitoring the training program at battalion level in accordance with AR 600-55.

e. Qualifying officials (examiners) must ensure that individuals being tested were actually trained and are fully qualified to operate the specific item of equipment. They also ensure that individuals understand the appropriate operator's manual and are capable of performing adequate PMCS. Examiners must ensure that operators demonstrate the ability to complete DA Form 5988-E.

f. Operator's permits are issued IAW the End User Manual for Unit-Level Logistics System (ULLS) and DA Pam 750-35. Information entered on the permit must be accurate. Strikeovers, erasures, correction fluid/tape, and obscuring or otherwise making an entry illegible are not permitted.

g. Operator licenses (DA Form 5984-E) issued by ULLS-G will be laminated for protection from normal wear and tear. The licenses of operators who will receive TMP certification must not be laminated until the automated DA Form 5984-E has received a verification stamp from TMP.

h. ULLS-G 5983-1-E and DA Form 348 for each qualified operator will be maintained by the commander's appointed individual following guidelines contained in DA Pam 750-35 and End User Manual for Unit-Level Logistics System (ULLS).

10. ASSIGNMENT OF OPERATORS AND MARKING OF EQUIPMENT:

a. Commanders will ensure that each item of equipment has a *qualified* operator assigned to it and, when practical, an assistant driver/operator.

b. Each vehicle (prime mover) will have the name of the operator and his immediate supervisor stenciled on the lower right-hand corner of the windshield (passenger side) of the cab, visible from the front of the vehicle. All other vehicle markings will be in strict accordance with TB 43-0209. Windshield markings will be in blocked letters not bigger than two inches.

c. For specific policies and guidelines for CARC and camouflage pattern painting (CPP), see AR 750-1. Since there are no adequate painting facilities in the battalion, only spot painting is authorized. Painting of entire vehicle or equipment will be done only at OSHA-approved facilities. Requests for painting an entire vehicle will be submitted on DA Form 5990-E through the local DOL.

d. Military load classifications (MLCs) are listed in FM 5-170. Every self-propelled vehicle over three tons must display its MLC on the front. If the vehicle's weight doesn't change, paint a nine-inch-diameter forest green circle directly on the vehicle. Paint the MLC in three-inch-high, lusterless black numbers centered on the circle. If the load is likely to change, as when pulling a trailer or driving a truck on equipment that runs empty sometimes and loaded other times, use a kit, NSN 9905-00-565-6267, so the numbers can be changed. For a set of replacement numbers for the sign kit, use NSN 9905-00-565-6268. Every vehicle with an MLC that may change *must* have the truck's/equipment's basic MLC painted on the side. No specific location is called for, but the best place on a truck is the upper right area of the right door, where it is best protected from wear and scrapes. Paint a black number, three inches high, centered inside a circular black border 3/4 inch wide and six inches in diameter, directly on the painted camouflage. Try not to put it on any black area in the camouflage. (Extracted from *PS Magazine*, issue 413, April 1987, pages 18-20).

e. Each operator will be familiar with and know his vehicle's military load classification.

f. The numerals and letters used to identify the [Name] DISCOM/Group, [Name] Battalion, company to which the equipment belongs, and administrative number will be made using flat black paint and two-to-three-inch-high letter and number stencils. No rectangles or color background to stencil marking will be used.

g. The prescribed tire pressure will be marked on the fender above each wheel (or on the body or frame immediately above each wheel when fenders are not used), with one-inch letters and numbers. The letters *TP* will precede the applicable tire pressure, using flat black paint.

h. Maximum tank fuel level will be marked using one-inch letters and flat black paint.

i. Maximum speeds for both on- and off-road driving will be stenciled on the dashboard or other appropriate place in the cab of all vehicles using one-inch letters and numbers.

11. TRAINING OF MAINTENANCE PERSONNEL:

a. Unit commanders will establish formal and on-the-job training programs to further develop mechanics' skills in the areas of troubleshooting malfunctions and using tools and test equipment. Training must be formalized with records kept of particular training and each individual's progress.

b. Commanders will also establish cross-training programs to ensure *critical* maintenance positions can be filled during the absence or shortage of personnel occupying those positions.

12. STANDARDS FOR MAINTENANCE AT UNIT LEVEL: Commanders will include in their respective unit's SOP the standards that guide maintenance personnel and supported platoons. Motor pool working hours, work uniform (coveralls, safety shoes, etc.) for mechanics, cleanup periods, and breaks must be standardized.

13. SCHEDULED SERVICES:

a. All scheduled services will be recorded using ULLS-G and listed on the unit's training schedule. Scheduling of all services will be coordinated with the battalion S3 in order to have equipment and personnel available to perform the service. Units will publish a training schedule for maintenance services (by bumper number and type of service) at least *monthly* and distribute it to all personnel responsible for performing services, operator/crew, and organizational mechanics.

b. When possible, the day before the service is to be performed, the motor sergeant should assemble the mechanics, first-line supervisor, and operator of the equipment to be serviced and give them a briefing on what is to occur the next day. On the day of the service this team must have the appropriate manuals, including proper lubrication order (LO), on hand. The motor sergeant must make available all resources and materials needed for the service, e.g., filters, lubricants, special tools, etc.

c. Leaders and supervisors ensure *assigned* operator is present to assist the mechanics during the service.

d. Leaders and supervisors must know how a service is supposed to be performed and *check it*. This is an integral aspect of quality control.

e. While the service is being performed, maintenance personnel should take advantage of the equipment and the operator's "captive time" and conduct a hundred percent technical inspection (TI) of the item. At the same time, any parts on hand for the serviced item must be installed and the ULLS-G uncorrected fault record updated.

14. INTERNAL QUALITY CONTROL AND QUALITY ASSURANCE:

a. A sound internal quality control/assurance program in each unit is the key to an effective maintenance program. It should be directed at:

(1) Preventing defects.

(2) Detecting deficiencies.

(3) Verifying compliance with established standards.

(4) Taking actions to eliminate rework resulting from improper or inadequate maintenance practices.

b. When inspectors are not assigned, QC/QA is performed by the senior maintenance supervisor designated, technically qualified personnel, the maintenance chain of command, and the owners of the equipment being serviced or repaired.

c. Commanders will address the subject of internal quality control in the unit's maintenance SOP and will define responsibilities concerning QC/QA, especially during equipment service or repair.

15. NON-MISSION-CAPABLE EQUIPMENT POLICY:

a. Commanders and leaders/supervisors at all levels are expected to know at all times the status of assigned equipment, particularly pacing items and low-density equipment.

b. Standards include:

(1) Twenty-four hours to order unit-level repair parts once the equipment is identified as NMC.

(2) Seventy-two hours to work-order equipment to the DS-level maintenance unit upon determining that repair is a DS-level responsibility.

(3) Once repair parts are received for NMC equipment at unit level, the standard is that the parts are installed immediately, returning the equipment to a fully mission-capable (FMC) status. Operators and first-line supervisors should be an integral part of the process. They should not be allowed to leave while motor pool mechanics work at night repairing their equipment. Only then will operators and supervisors have an appreciation for the mechanic's job and become more cognizant of their own role in the discipline of preventive maintenance.

(4) Once equipment is accepted by the DS-level maintenance units, unit motor officers and maintenance supervisors must stay in constant touch with the maintenance unit's mission requirements. [Unit Name] personnel should be contacted when difficulties are experienced in this area. Leaders'/supervisors' knowledge of the latest status of equipment work-ordered to DS-level maintenance will be an area of special interest during maintenance meetings conducted by the battalion commander and XO.

(5) When notified by the maintenance unit that an item of equipment is ready for pickup, units will proceed immediately to pick it up. Once equipment is picked up from the maintenance unit or repaired at unit level, [Unit Name] personnel will be notified immediately (by phone or in person) to make corresponding changes to the unit's materiel condition status report.

16. SAFETY AND FIRE PREVENTION:

a. The entire chain of command must be safety conscious and must ensure all personnel in the unit adhere to these guidelines and practice safety at all times.

b. Commanders will designate a safety officer and NCO. Their duties must be defined in the unit's safety SOP.

c. A fire marshal will also be designated and his duties specified and defined.

d. At least one safety meeting will be conducted *monthly* by maintenance supervisors and the safety officer or NCO for all maintenance personnel. A record of dates and subjects discussed should be maintained and furnished to inspectors upon request.

e. No-smoking signs will be posted in maintenance shop areas. Smoking will be allowed only in designated areas. Smoking will not be permitted *within 50 feet* of stored flammables.

f. Paint, POL products, solvents, and gas cylinders will be stored separately and in proper designated areas. *Never use gasoline as a cleaning solution.*

g. Clean and dirty/oily rags will be segregated and stored in covered metal containers.

h. Do *not* store power-generation or other small-engine equipment with fuel in the tanks in a building.

i. Power generators and small-engine equipment, e.g., heaters and pumps, will *not* be refueled inside a building while hot from operation or while engine is running.

j. Fire points must be identified and all personnel must be trained in the use of different fire extinguishers. A workable fire plan must be developed and posted throughout the maintenance area.

k. Floors must be kept clean and reasonably free of oil, grease, sawdust, etc.

- l.** Proper color codes must be used for safety markings throughout the maintenance areas IAW AR 385-30.
- m.** Gas cylinders must be properly color-coded and equipped with the correct valves and fittings. Also, valve protection covers must be placed on all cylinders when not in use. Cylinders will be stored IAW AR 700-68.
- n.** The maximum speed in the motor pool area is 5 mph.
- o.** Ground guides will be used when a vehicle is being moved in the motor pool. Ground guides will *never* stand between the vehicle and a stationary object.
- p.** Equipment will *not* be left unattended with engine running.
- q.** Rear safety straps (one side will be welded in place) will be used when transporting personnel in equipment cargo beds. Personnel must be seated when equipment is in motion.
- r.** Seat belts will be used by all passengers and driver when equipment is equipped with them.
- s.** Internal combustion engines will *never* be operated in a closed room unless exhaust is properly vented to the outside.
- t.** Vehicle and equipment will be started and operated by only properly licensed individuals.
- u.** Chock blocks will be used when parking vehicles and equipment. This applies at all locations, including the unit area and motor pool.
- v.** Welding areas must be fireproof and vented. When welding is done outside, proper shielding must be provided.
- w.** Horseplay will not be permitted in maintenance facilities or motor pool area.
- x.** Hearing-protective devices will be used in areas with high noise levels. All operators and maintenance personnel must have such protective devices available at all times.
- y.** Personnel will not lean on, stand, or sit under equipment suspended by recovery vehicles, A-frames, jacks, or other forms of overhead lifting devices.
- z.** Jack stands or trestles will be used to support equipment when work underneath is required.
- aa.** Protective supplemental safety clothing will be used when performing welding operations or when handling batteries.
- bb.** Face and eye protection must be worn when performing welding, cutting, grinding, sanding, or chipping operations.
- cc.** All tools will be used only for their intended purpose. Do *not* use power tools with frayed electrical cords or without proper grounding.
- dd.** All lifting and support devices will be maintained, inspected, and/or load-tested at regular intervals as required.
- ee.** There must be a tire-inflating cage in each maintenance facility built in accordance with safety specifications. The inflation cage depicted in TM 9-2610-200-14 will meet all Army requirements and OSHA standards. The entire chain of command is responsible for the cage's adequate and safe use with the correct tire air hose and gauge. Use NSN 4910-00-441-8685 for the air hose and gauge.

- ff.** Proper use of compressed air and hydraulic equipment will be stressed.
- gg.** Power-generating equipment and fuel-dispensing pumps will be properly grounded prior to use.
- hh.** Creepers will be leaned (upright position) against the workbench when not in use.
- ii.** Breathing asbestos dust is hazardous to your health. Danger of inhaling asbestos particles or dust occurs when the material containing asbestos can be crumbled, pulverized, or reduced to powder in the hand, or when it readily releases fibers with only slight disturbance. Use approved respiratory protection as directed by AR 40-5 and TB Med.502.

17. HAZARDOUS WASTE DISPOSAL AND ENVIRONMENT PROTECTION:

- a.** Units will adhere to guidelines of the [Your] Battalion Hazardous Waste SOP. The S4 will coordinate all hazardous waste storage.
- b.** Hazardous waste and waste oil will be collected and stored in separate containers.
- c.** Containers will be marked with the following:
 - (1)** "HAZARDOUS WASTE" or "WASTE/USED OIL."
 - (2)** Date waste was first collected in the container, e.g., "Start: 9-23-99."
 - (3)** The NSN and nomenclature of the product being collected.
 - (4)** "FLAMMABLE," "CORROSIVE," or "COMBUSTIBLE" as appropriate.
 - (5)** Date when container was filled.
- d.** Leave at least two inches of air space in filled containers.
- e.** Contaminants will not be released into any water service.
- f.** Waste petroleum products will be stored *only* in approved containers.
- g.** Contaminants will not be discharged directly onto the ground.
- h.** Radiators will *not* be drained onto the ground or into storm drains. Waste antifreeze will be disposed of in approved containers.
- i.** The maintenance chain of command will actively supervise personnel to insure minimal environmental impact due to maintenance operations.
- j.** Any small spills on hard surfaces will be immediately cleaned using appropriate absorbents and the contaminated absorbent disposed of at the sanitary landfill authorized for hazardous wastes.
- k.** For spills on soil areas, the contaminated soil will be removed and disposed of at the sanitary landfill designed for hazardous wastes. Fresh top soil/gravel will then be spread over the area.
- l.** Under no circumstances will small spills be washed into floor drains.
- m.** Immediate action must be taken to contain large spills. Large spills are defined as being more than five gallons in volume or 100 square feet in area.
- n.** Unit commanders will be notified immediately when a large spill occurs.
- o.** Used or contaminated POL products will be turned in to the installation collection point by coordinating with the battalion S4.

18. ENERGY CONSERVATION:

a. Energy Conservation Officer/NCO: All units will have an energy conservation officer and NCO appointed in writing.

b. Inspections: Energy conservation officer/NCO will conduct unannounced inspections of the maintenance areas and activities at least once a month. Results of inspections will be maintained on file subject to future inspection.

c. Fuel conservation measures related to training activities:

(1) Reduce operations/training that involve vehicles and other fuel-consuming equipment without incurring unacceptable degradation of operational readiness.

(2) Use the smallest vehicle possible consistent with the mission.

(3) Reduce FTX and CPX numbers and scope consistent with readiness requirements.

(4) Establish tight controls on off-post training.

(5) Use maximum foot movement to training/administrative areas and in conduct of training/daily activities.

(6) Extend the length of required field training exercises to maximize use of equipment once in place.

d. General fuel conservation measures:

(1) Exercise good vehicle maintenance and driving practices.

(2) Properly tune engines.

(3) Correctly inflate tires.

(4) Clean and replace air filters (cleaners).

(5) Avoid rapid starts from intersections and excessive use of brakes.

(6) Consolidate trips, dispatching fewer vehicles on a daily basis.

(7) Eliminate unnecessary idling of vehicle engines.

19. ACCIDENT REPORTING:

a. The unit safety officer or commander must notify the battalion safety officer (or in his/her absence, the battalion executive officer) *immediately* following an accident. The following information must be provided (all accidents, regardless of the degree of injuries sustained, must be reported in this manner):

(1) Date of occurrence.

(2) Time and location.

(3) Name, rank, age of personnel involved.

(4) Unit.

(5) Type of injury, if any.

(6) Brief description.

b. All *classes* of Army accidents are *reportable* to the battalion safety officer. However, only *certain classes* of accidents require a DA Form 285.

c. For accidents requiring a DA Form 285, the unit commander will make sure that an investigation is conducted to get the information required by the form.

d. The completed form must be forwarded to the safety officer or the battalion executive officer within two days of the accident. See the Battalion Safety SOP for instructions on how to complete the form.

e. DA Form 285 must be completed on the following:

(1) Class A, B, and C accidents.

(2) Class D accidents dealing with occupational illnesses caused by repeated exposure over a period of time. Examples are noise-induced hearing loss, asbestosis, radiation poisoning, organic solvent exposure, dermatosis, silicosis, etc.

f. **Classes of accidents:**

(1) **Class A accident.** The total cost of property damage, injury, or occupational illness is at least \$500,000; a fatality occurs as a result of Army operations; or a soldier is fatally injured off post.

(2) **Class B accident.** The total cost of property damage, injury, or occupational illness is at least \$100,000 but less than \$500,000.

(3) **Class C accident.** The total cost of property damage is at least \$10,000 but less than \$100,000; or an injury or occupational illness results in a lost workday case involving one or more days away from work.

(4) **Class D accident.** The total cost of property damage is less than \$10,000, but an injury or occupational illness resulted in a lost workday case involving one or more days of restricted work activity; or a nonfatal case resulted in no lost workdays.

20. SECURITY OF MAINTENANCE FACILITIES AND EQUIPMENT:

a. All vehicles and equipment will have an approved chain and a 200-series lock available to secure them when not in use or when unattended in both garrison and field training exercises. Brass locks are authorized only to secure POL storage tanks and pumps to prevent sparking.

b. At close of business all responsible personnel will ensure that offices, tool rooms, shops, CONEXs, vehicles, equipment, and repair parts are properly secured. Individual toolboxes will be locked with a 200-series lock and secured to a metal rack or stored inside the toolroom.

c. Privately owned vehicles (POVs) will not be permitted inside motor pools unless they belong to civilian contractors working in the motor pool facilities. POVs may be parked in designated areas in the motor pool for the purpose of securing them during unit deployment when involved in extensive field training exercises.

21. RECOVERY OPERATIONS:

a. Units in the battalion are responsible for recovery of their organic equipment.

b. When the operator detects an inoperable condition, he assesses the damage and initiates action by informing the chain of command. (The unit's SOP should prescribe notification procedures.)

c. When recovery is beyond the unit's capability to perform, recovery support will be requested from the DS-level maintenance unit.

d. Units requesting recovery support should provide the following information:

- (1) Type vehicle to be recovered.
- (2) Bumper number.
- (3) Exact location of vehicle.
- (4) The problem or suspected problem.
- (5) Location of the requestor.

22. WORK ORDER OF EQUIPMENT TO DS-LEVEL MAINTENANCE:

a. Units in the battalion must coordinate by phone or in person with either the NCOIC or maintenance control officer of DS-level maintenance units on maintenance support issues. Unit commanders are encouraged to visit at any time; particularly on assumption of command, supported unit motor officers should make a habit of visiting the DS-level maintenance units at least once a week.

b. The [Name] maintenance company is responsible for providing DS-level maintenance and Class IX supply support for the following categories of equipment:

- (1) Tactical vehicles and trailers.
- (2) Weapons.
- (3) Communications and electronics.
- (4) Air conditioning and refrigeration.
- (5) Quartermaster and chemical equipment.
- (6) COMSEC.
- (7) Allied trades (welding, body and fender, radiator repair, glass, light duty fabrication, and machining).
- (8) Canvas and tentage.
- (9) Fuel and electric components.
- (10) Batteries.

c. The standard is two working days from the time equipment becomes NMC to have it work-ordered to the DS-level maintenance unit. When deviations from this standard occur, unit commanders must give reasons in the weekly maintenance meeting.

d. With proper coordination between the unit and the DS-level maintenance unit, the initial/acceptance inspection may be conducted at the customer unit or on site.

23. MAINTENANCE OF WEAPONS AND COMMUNICATIONS, MESS, AND LOW-DENSITY EQUIPMENT:

a. Low-density equipment like generators, pumps, and trailers must be properly maintained and exercised at least once a week. Other types of equipment not normally found under the control of the organizational maintenance section will be maintained in accordance with applicable technical manuals. Weapons and communications and dining facility equipment fall under this category. Records will be kept of such action and will be subject to special interest during command inspection programs (CIPs).

b. Generators must be exercised under load at least once a month. Load banks from the DS-level maintenance unit may be utilized for this purpose.

24. VEHICLE LOAD PLANS:

- a. Each unit must have complete vehicle load plans approved by the company commander. They must be adhered to when deploying to the field and when returning from exercises.
- b. Copies of the vehicle load plans must be on hand while convoying and available for inspections during exercises and CIPs.

25. TOOLROOM OPERATIONS:

- a. Unit commanders will ensure that a primary toolroom attendant is appointed and has signed for all hand tools, sets, kits, outfits, and TMDE secured or stored in the toolroom.
- b. Inventory of tools will be performed IAW DA Pam 710-2-1.
- c. Tools will be stored and issued IAW DA Pam 710-2-1. Items of special interest include a list (to be kept in the toolroom) of personnel authorized to draw tools from the toolroom. A separate sign-out log (ledger) must be kept for each set, kit, and outfit (SKO) in the toolroom. The log will be prepared for the end item only; a major SKO may contain individual sets or kits within the end item. Minimum log entries are:
 - (1) NSN and noun nomenclature of tool.
 - (2) Quantity issued.
 - (3) Date of issue.
 - (4) Name and signature of individual receiving tool.
 - (5) Initials of toolroom attendant when tool is returned.
- d. Toolroom attendant will check tools when they are turned in for cleanliness and serviceability, will initiate immediate action to get replacement for lost or unserviceable tools, and will turn in all excess and unserviceable tools through proper channels.

26. PUBLICATIONS:

- a. Unit commanders will appoint a publications officer and NCO. They will become familiar with the publications system and the contents of DA Pam 25-33, DA Pam 25-30, and [other local command publications].
- b. All maintenance and equipment-related Army and local command regulations, circulars, SOPs, supplements, technical bulletins, technical manuals, field manuals, supply manuals, lubrication orders, and blank forms must be on hand or on requisition at all times.
- c. Publications in the [Unit Name] will be requisitioned through the S1 (Publications NCO).
- d. *PS Magazine (The Preventive Maintenance Monthly)* publishes in each edition a list of new and changed publications.
- e. Maintenance supervisors must ensure that publications on hand are current, changes are posted, and no pages or sections are missing from manuals.
- f. Publications must be available and accessible to mechanics, and all operators must be provided with a -10 (operator's) manual. Evidence of use is a good indication of availability and accessibility.

g. Table A-1 provides a list of recommended publications that should be on hand in each unit to facilitate implementation of the maintenance program. The list, which is not all-inclusive, is subject to change:

Table A-1. Recommended Publications

ARMY REGULATIONS	
11-1	Command Logistics Review Program (CLRP)
11-2	Internal Control System
25-400-2	Modern Army Record Keeping (MARKS)
140-15	Maintenance of Equipment
190-11	Physical Security of Weapons (Update)
190-13	The Army Physical Security Property (Update)
190-51	Security of Army Property (Update)
220-1	Unit Status Reporting
310-2	Distribution of DA Publications
310-34	DA Equipment Authorization and Usage
350-1	Army Training
350-17	NCO Development Program (NCODP)
385-10	Army Safety Program
385-30	Safety Color Code Markings and Signs
385-32	Protective Clothing and Equipment
385-41	Accident Reporting and Records
385-55	Motor Vehicle Accident Prevention
420-55	Food Service and Related Equipment
420-90	Fire Prevention
600-20	Army Command Policy and Procedures
600-55	Motor Vehicle Driver Selection, Testing and Licensing
614-20	Selection of Enlisted Soldiers for Training and Assignment
672-20	Incentive Awards
700-4	Logistics Assistance Program
700-84	Issue and Sales of Personal Clothing (update)
700-138	Army Logistics Readiness and Sustainability
700-139	Army Warranty Program Concepts and Policies
710-2	Supply Policy Below Wholesale Level (update)
725-50	Requisitioning, Receipt, and Issue System
735-5	Property Accountability (update)
740-3	Care of Supplies in Storage Program
746-1	Packaging of Army Materiel for Shipment and Storage
750-1	Maintenance Concepts and Policies (update)
750-10	Modification of Materiel and Safety of use Messages
750-20	Prevention, Control, and Abatement of Pollution from Mobile Equipment
750-22	Maintenance of Supplies and Equipment AOAP
750-25	Army Test, Measurement and Diagnostic Equipment (TMDE) calibration and Repair Support Program
750-43	Test, Measurement and Diagnostic Equipment (TMDE)

Table A-1. Recommended Publications

FIELD MANUALS	
3-4	NBC Protection
3-5	NBC Decontamination
3-100	NBC Operations
5-20	Camouflage
5-36	Route, Reconnaissance, and Classification (Vehicle Load Marking, Bridge Classes)
9-207	Cold Weather Operations-Maintenance
10-14	Unit Supply Operations (Manual Procedures)
10-14-1	Commander's Handbook for Property Accountability at Unit Level
10-16	General Repair: Tents, Canvas, Webbing
10-20	Petroleum Pipelines, Tanks and Related Equipment
10-52	Field Water Supply
10-69	Petroleum Supply Point Equipment and Operations
10-70	Inspecting and Testing Petroleum Products
10-71	Petroleum Tank Vehicle Operation
20-22	Vehicle Recovery
21-11	First Aid for Soldiers
21-26	Map Reading
21-31	Military Symbols
21-60	Visuals Signs
21-305	Manual for Wheeled Vehicle Driver
24-1	Combat Communications
24-20	Field Wire and Field Cable Techniques
25-2	Unit Training Management
29-2	Organizational Maintenance Operations
29-24	General Support Maintenance Operations
38-725	DSS (Management and Procedures)
38-725-10	Logistics Codes, Unit/Organization
38-725-23	Logistics Codes
43-2	Metal Body Repair
43-11	DS Operations
43-4	Wood and Metal Repairs
43-5	Unit Maintenance Operation
55-30	Motor Transport Units and Operations
55-506-1	Basic Electricity
100-10	Combat Service Support
101-5	Staff Organization and Operations
DA PAMPHLETS	
25-30	Consolidated Index of Army Publications (microfiche)
310-10	The Standard Army Publications System (STARPUBS)
310-13	Posting and Filing Publications
385-1	Unit Safety Management
385-3	Protective Clothing and Equipment
710-2-1	Using Unit Supply System Manual Procedures (update)

Table A-1. Recommended Publications

710-2-2	The Supply Support Activity (SSA) Supply System (update)
738-750	The Army Maintenance Management System (TAMMS) (update)
750-1	Organization Maintenance Guide for Leaders
750-35	Functional User's Guide for Motor Pool Operations (update)
TECHNICAL BULLETINS	
5-4200-200-10	Fire Extinguishers
9-2300-295 series	Warranty of Vehicles (see DA Pam 25-30 list for model)
9-2300-422-20	Security of Tactical Wheeled Vehicles
43-0001 series	EIR Digest (Not Stocked. Subscribe on DA Form 12 series)
43-0002 series	(For DSU) Maintenance Expenditure Limits (MEL) or Major End Items
43-003-87	Conversion to Silicone Brake Fluid (Tank-Automotive)
43-0125	Hook-up of Electrical Cables to Mobile Generator Sets
43-0140	Instructions for Preparation of Request for Disposition of Waiver
43-0142	Safety Inspection/Load testing, Lifting Devices
43-0209	Color, Marking, Painting of Military Vehicles
43-0210	Nonaeronautical Equipment: AOAP
43-0211	AOAP Guide for Leaders/Users
43-0213	Rust Proofing Procedures (Tactical Wheeled Vehicles)
43-0239	Maintenance in the Desert
358-3	Military Gas Can
600-1	Licensing Operators (Support Equipment)
746-95-1	Camouflage of Armament
750-25	Maintenance of Supplies, TMDE, Calibration and Repair Support Program
750-651	Engine Antifreeze and Cleaning Compounds
SUPPLY BULLETINS	
3-30-2	Chemical-Biological Canisters and Filters Elements
9-16	Tank-Automotive Winterization Kits
11-6	Dry Batteries Supply Data
11-30	Dry Batteries Handling, Storage and Testing
700-20	List of Army Adapted Items (microfiche)
746-1	Publications: Packaging General Supplies
TECHNICAL MANUALS	
-10/120/-20P	For every item of equipment authorized (Unit Level)
-30/-30P	(For DSU) For all items repaired by the DSU
5-618	Paints and Protective Coating
5-725	Rigging
5-1080-200-10HR	Camouflage Screening System
5-1080-200-13&P	Camouflage Screening System

Table A-1. Recommended Publications

9-243	Use/Care Hand Tools and Measuring Tools
9-2300-422-23&P	AOAP Sampling Valves
9-2610-200-24	Organizational, DS, Care of Pneumatic Tires
9-2610-201-14	Tires: Inspection and Classification
9-6140-200-14	Lead-Acid Storage Batteries
10-7200-200-13	Gasoline and Water Cans
10-8400-201-23	Repair of Clothing and Individual Equipment
11-5800-213L	List of Pub's for Commo/Electronics Equipment
38-600	Admin Vehicle Management
43-0139	Painting Instructions
43-0143	EIR and Maintenance Summary for Tank/auto Equipment
LUBRICATION ORDERS	
	For every item of equipment authorized requiring lubrication
PS MAGAZINE	
	Issues for last three years on hand

27. ARMY OIL ANALYSIS PROGRAM (AOAP):

a. The purpose of AOAP is to:

- (1) Detect potential component failure.
- (2) Determine oil quality and need for oil change.
- (3) Extend oil life and conserve resources.
- (4) Reduce maintenance cost through preventive maintenance prior to major repairs.

b. Each unit commander will appoint an AOAP monitor who will be responsible for managing the unit's oil analysis program.

c. The post AOAP coordinator [*local installation POC, address, and phone number*] conducts quarterly certification training for unit monitors IAW established schedule.

d. The unit's AOAP monitor, under supervision of the motor sergeant or maintenance supervisor, will:

- (1) Requisition necessary kits and supplies on a timely basis.
- (2) Schedule equipment to be sampled.
- (3) Take samples in accordance with DA Pam 738-750.
- (4) Prepare and submit DD Form 2026 for each sample taken. Take all samples, together with DD Form 2026, to the post AOAP coordinator in Building [*number*].
- (5) Take required corrective action on notification from the post AOAP coordinator or the BMO.

(6) Maintain an AOAP publication file.

(7) Ensure that all special samples requested by the lab are taken and submitted immediately.

(8) Send a copy of the partially completed DA Form 3254-R to the support activity when a vehicle or component is work-ordered for maintenance based on lab recommendation. Once completed, DA Form 2408-20 and DD Form 314 are no longer required. Units will use the monthly computerized reports generated by the lab to manage the AOAP.

(9) AOAP for ground equipment is fully computerized. Units will use the monthly computerized reports generated by the lab to manage the AOAP.

28. CALIBRATION OF TMDE:

a. The BMO/NCOIC is the overall battalion coordinator for the calibration of TMDE.

b. He/she receives, monitors, and updates, as necessary, all calibration reports received from the installation calibration facility (Building [number], [your installation, phone number]) and the S4, [name] DISCOM/Support Group. He also distributes calibration-due and delinquency reports to the units.

c. Commanders will appoint a TMDE calibration monitor who will:

(1) Maintain current status of all equipment requiring calibration.

(2) Monitor all calibration reports received from the battalion coordinator and take action as required.

(3) Turn in all TMDE scheduled for calibration to [your installation facility].

(4) Pick up calibrated equipment NLT one working day after notification.

d. Calibration printouts (three copies) and cards will be distributed by the S4, [Name] DISCOM/Support Group. Battalion BMO will keep a copy of the master and delinquent printout and pass two copies to each unit for appropriate action.

e. Units will confirm printouts, change letter requirements as required, and return one copy, indicating corrective action taken, to BMO. BMO will consolidate printouts and forward them to DISCOM/Support Group S4.

f. Recommended calibration publications that should be on hand include:

(1) TB 43-180.

(2) AR 750-43.

(3) TB 750-25.

(4) Area TMDE Support Detachment External SOP.

29. SAFETY, DRIVER, MECHANIC, OPERATOR AWARDS PLAN:

a. Unit commanders will:

(1) Establish procedures to monitor the number of accident-free miles/hours completed by each driver or operator and the sustained safe, proficient performance of mechanics/repairers.

(2) Recognize vehicle operators who maintain outstanding safe driving records and sections/platoons with outstanding records. DA Form 1118, DA Form 1119, or other forms of recognition will be used.

b. AR 600-8-22 authorizes the issue of driver and mechanic badges for individuals who excel in the operation and maintenance of equipment.

c. Drivers/operators of military vehicles and equipment who have had exceptional driving or operating performance and safety records for at least twelve consecutive months are eligible for safety awards and may have "ARMY EXPERT" or "MASTER OPERATOR" stamped on their operator's permit (AR 600-55).

d. Requests for awards must be coordinated with the battalion safety officer and submitted to the S1 for appropriate action.

30. PRESCRIBED LOAD LIST:

a. All PLL transactions will be IAW the End User Manual for the Unit-Level Logistics System (ULLS), Chapters 4 through 6, using the ULLS-G.

b. For PLL policies and procedures applicable to all units in the battalion, see the ULLS-G paragraph of the SOP and the [Name] DISCOM/Support Group's Internal SOP for Unit-Level Logistics System-G.

c. Commanders must ensure that the priority system is not abused; they will monitor and authenticate the use of high-priority requisitions. ULLS-G does not provide an automated function to satisfy this requirement. PLL clerks will produce a Commander's Exception Report each day high-priority requisitions are created and provide it to the unit commander. Commanders must review and sign the report and return it to the PLL clerk to maintain on file.

31. LOCAL PROCUREMENT OF REPAIR PARTS:

a. Authority to place calls against blanket purchase agreements (BPAs) established with local vendors and issued by the [local contracting office] will be granted by [Name, Higher Headquarters].

b. Only BMO personnel granted authorization from the Chief, Purchasing Division, will act as agents allowed to place calls against BPAs. **No other individuals in the battalion are authorized to place such calls.**

c. The aggregate amount of purchase transactions will not exceed \$1,000.00. Purchases will not be divided to avoid monetary limitations.

d. Individuals from BMO authorized as agents will comply with DOD 5500.7-R and will review the regulation at least semiannually. (A statement must be signed verifying compliance with this requirement and kept on file at BMO to be made available during inspections).

e. Requests for local purchase must be approved and signed by the unit commander. When the following criteria are met, requests will be submitted to BMO using DD Form 1348-6:

(1) The supply system has not responded in a timely manner and has failed to expedite repair parts for NMC equipment.

(2) Low-density equipment, the absence of which will impair the mission, must be repaired.

(3) Equipment being used in critical projects in which the number of pieces of equipment utilized is vital to the project's completion must be repaired.

32. RECOVERY AND DISPOSAL OF RECOVERABLE COMPONENTS:

a. Commanders will ensure the PLL clerk and maintenance personnel know how to use the FEDLOG. Also, a copy of CDA Pam 18-1 must be available and used.

b. The recoverability code is a one-position alphabetic code (Column RC of the AMDF). This code identifies the level of maintenance allowed to *dispose* of the item when it can no longer be used.

c. Recoverable parts and assemblies will be disposed of IAW subject codes NLT three working days after their removal.

33. UNIT-LEVEL LOGISTICS SYSTEM:

a. Automated procedures for dispatching, TAMMS, licensing, and PLL will be in accordance with the End User Manual for the Unit-Level Logistics System (ULLS), with this paragraph, and with [name] DISCOM/Support Group's Internal SOP for the Unit-Level Logistics System.

b. The following processes must be accomplished by all units at indicated intervals:

(1) Daily:

- (a)** C12 - Excess report/CDR; exception report (run before U31).
- (b)** U31 - Send transaction to DSU.
- (c)** U32 - Send previous transaction to DSU (run immediately after U31 to make a backup copy of the diskette).
- (d)** C43 - Automatic status processing.
- (e)** M52 - Update maintenance request status.
- (f)** F32 - Backup ULLS-G data files (this process must be done at the end of the business day).
- (g)** M20 - Motor equipment utilization record return (if necessary).
- (h)** M75 - Equipment availability report
- (i)** C54 - Demand history add (as it occurs).

(2) Weekly:

- (a)** C70 - Zero balance report.
- (b)** M20 - Purge control log.
- (c)** M17 - Parts received not installed.
- (d)** M85 - DCR/deadline data file reconciliation (must be run prior to U35).
- (e)** U35 - Deadline data.

(3) Biweekly:

- (a)** C20 - Request for follow-up.
- (b)** C80 - PLL/DCR reconciliation.

(4) Monthly:

- (a)** C60 - Demand history analysis.
- (b)** C75 - PLL update.
- (c)** C65 - PLL inventory.
- (d)** C8B- Catalog update.
- (e)** C85 - DCR purge.
- (f)** C24 - DCR print with history.
- (g)** M60- Scheduled maintenance due.
- (h)** C55 - Excess management.

(5) Annually: M26 - Periodic usage report.**(6) Keep on File:**

- (a)** M40 - Report of all operators individually (Automated Form 348).
- (b)** C60 - Demand analysis (monthly requirement).
- (c)** C65 - PLL inventory (monthly requirement).
- (d)** C85 - Purge inventory (monthly requirement).
- (e)** M20 - Purge control log.
- (f)** M80 - Fuel usage.
- (g)** M65 - Scheduled services performed.
- (h)** M94 - Equipment data file.
- (i)** M85 - DCR/deadline reconciliation (weekly requirement).
- (j)** M51 - Maintenance request register.
- (k)** C22 - DCR inquiry (all open records).

(7) As Required: M20 - Alert dispatch.**34. SUGGESTION PROGRAM/PROJECT SMART:**

- a.** Commanders will encourage soldiers to participate in subject programs.
- b.** Project SMART is designed to improve combat readiness through the individual soldier's evaluating and recommending changes in Army logistical doctrine, policy, and procedures. Ideas may be submitted by anyone, regardless of rank. No command approval is required.
- c.** Suggestions should be in writing using the following format:
 - (1)** To Project SMART.
 - (2)** Date.
 - (3)** Reference (if any).
 - (4)** Current problem/procedure (please print).
 - (5)** Recommendation for improvement (please print).
 - (6)** Full name.
 - (7)** Address.

- (8) Send the suggestion to:
PROJECT SMART/TIPS
DIRECTOR OF COMBAT DEVELOPMENTS FOR CSS
3901 A AVENUE SUITE 220
FT LEE VA 23801-1809

d. Individual will receive written notification that the suggestion was received and is being evaluated. If the suggestion is adopted, individual may qualify for a monetary or impact award.

e. Any other suggestions geared toward increasing productivity, improving working conditions, reducing likelihood of accidents, or improving morale should be submitted on DA Form 1045. A more complete definition and details on how to use DA Form 1045 are found in AR 672-20.

f. Suggestions on using DA Form 1045 will be routed through the battalion S4 for processing and evaluation.

35. SUBMISSION OF QUALITY DEFICIENCY REPORTS:

a. All Army materiel is subject to Quality Deficiency Reports (QDRs) and Equipment Improvement Reports (EIRs). The purpose of submitting a QDR is to report conditions below standard-quality workmanship (shoddy construction). The purpose of the EIR is to report materiel faults in design, operation, or manufacture.

b. The unit that identifies the need for a QDR or EIR is responsible for reporting the condition under AR 702-7 and DA Pam 738-750.

c. SF 368 will be used to report equipment quality deficiencies and to suggest ideas or make recommendations to improve such equipment.

36. EXTERNAL ASSISTANCE:

a. Unit commanders are encouraged to utilize all the external assistance available to them in this installation.

b. Prepare a listing of available assistance in supply and maintenance disciplines.

37. WARRANTY PROGRAM FOR NEW EQUIPMENT:

a. The warranty coordinator (WARCO) provides information and assistance to units supported by the Maintenance Division, DOL [*list WARCO information*].

b. Warranties cover defects in materials or workmanship, usually for a specified time. Some warranties run for a remarkably long time.

c. Warranties don't usually cover things that go wrong because of:

- (1) Neglect.
- (2) Improper or unskilled operation.
- (3) Installing wrong parts.
- (4) Floods, hail storms, tornadoes, etc.
- (5) Alterations of any kind.
- (6) Improper or unskilled repairs.
- (7) Combat.

d. Warranties generally don't cover high-usage or high-expected-failure-rate parts, such as filter elements, electronic tubes, bulbs, fuses, belts, and hoses. The exception is when a failure covered by the warranty causes any of these parts to also fail.

e. Warranty work can generally be done either by Army maintenance activities or by the manufacturer or its dealerships, whichever the Army prefers in each case. To get repairs for the following types of equipment, call the BMO, who will, in turn, call the WARCO:

(1) Items requiring Equipment Control Records (DA Form 5992-E).

(2) Nontactical vehicles such as sedans, trucks, and buses operated from transportation motor pools.

(3) Engine-driven items costing over \$3,000, such as riding mowers, compressors, generators, and pumps.

f. If the work is to be done by a dealership, units will be advised to submit a DA Form 5990-E IAW DA Pam 738-750 to the WARCO office. The WARCO will assign a job order number and monitor the repairs to completion. Before units attempt to perform repairs of items of equipment under warranty, contact the WARCO for authorization and coordination.

g. Small, inexpensive items like toasters, fans, push mowers, tools, vacuum cleaners, and air conditioners are usually covered by "Trade Practice" warranties. The Army has the same warranty rights as private purchasers have. If the item is new or not yet heavily used and it appears to have failed as a result of a defect in the manufacturer's materials or workmanship, call the WARCO to help you pursue warranty repairs.

38. SUBMISSION OF MAINTENANCE REPORTS TO BATTALION:

a. All units will submit to BMO, together with the end of the month DA Form 2406, a report itemizing the previous month's performance in the following areas:

(1) **AOAP** – samples due, number taken, number delinquent, reason for failing to comply with standards.

(2) **Calibration** – number of TMDE due, number delinquent, reason for failing to comply with standards.

(3) **PLL** – number of lines, number of zero balances, problems experienced with supply system.

(4) **Roadside inspections** – number inspected, number passed, number failed, what's being done to prevent similar failures.

(5) **Scheduled services** – number due by type: monthly, quarterly, semiannually, annually; number performed; number delinquent; reason for failing to comply with standards.

b. Input from units will be consolidated by BMO and discussed by battalion executive officer during the monthly DISCOM/Support Group maintenance meeting with the DISCOM/group commander and during the monthly maintenance with the battalion commander.

39. PREPARATION AND SUBMISSION OF MATERIEL CONDITION STATUS REPORT (DA FORM 2406):

a. Reports are due to BMO as follows:

(1) **Weekly:** Due every Thursday NLT 1300. Any daily changes, additions, or deletions must be called in to BMO as they occur.

(2) Mid-Month: Two working days prior to the 15th NLT 1300 hours. Front and back of DA Form 2406 must be signed by the unit commander IAW AR 700-138.

(3) End of Month: Two working days prior to end of the month. Backside only of DA Form 2406 is completed. Status of parts requisitioned at unit level to repair NMC reportable equipment and explanation for deviation from standards are a must in this report.

b. Unit commanders must ensure DA Form 2406 is prepared IAW AR 700-138. Items must be listed by LIN sequence, and model numbers (column c) must be exactly as they appear in Appendix. B of subject regulation.

c. In addition, all units will provide their PLL status on the right-hand side of block 11 (remarks) of DA Form 2406 using the following format:

- (1)** Unit's DODAAC.
- (2)** Lines authorized in PLL.
- (3)** Total lines with zero balance.
- (4)** Percentage (%) of lines with zero balance.

d. All parts needed to repair NMC equipment at unit level must be listed in Column i of DA Form 2406 or on an additional sheet, when required. Include the following:

- (1)** NSN part number.
- (2)** Part nomenclature.
- (3)** Document number (Column h).
- (4)** Current status of requisitions (Column h).

e. Contact BMO for assistance to get latest status of requisitions using the Logistics Intelligence File (LIF).

NOTE

If your unit is operating under the automated materiel status system (AMSS), replace the discussion on DA Form 2406 with the procedures your unit uses to manage AMSS reporting.